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ORIGINAL LECTURES.

CLINICAL LECTURE
ON THE THERAPEUTIC USES OF JABORANDI.

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ON several occasions I have called your attention to the therapeutic applications of a drug which has of late been used as a most valuable addition to our hospital pharmacopœia. I wish this morning to invite you to join with me in examining its virtues and in studying the indications for its use. In September, 1875, my attention was called by Dr. F. V. Green, U.S.N., to a preparation of jaborandi made by him from some leaves, the first introduced into this city, from Brazil. A series of experiments in the wards of St. Joseph's Hospital, at which I assisted, proved so satisfactory that Dr. Green brought their results directly to the notice of the profession in an exceedingly interesting article which appeared in the *Philadelphia Medical Times* of October 30 of that year. When I entered upon my term of service in the wards of this hospital in January, 1876, I immediately introduced the use of jaborandi, and since then my colleagues and myself have carefully studied its action and application.

For the purpose of giving you a clearer insight into its *modus operandi*, I bring before you this morning a case which we shall study together.

C. H. is 23 years of age, a native of this country. He says that he has always been tolerably healthy, but has been knocked about a great deal, having had no steady occupation. His mother died of dropsy, which was said to have resulted from Bright's disease. Three months ago, while dredging for oysters, and exposed to all grades of weather without protection, he began to suffer from pain in the small of the back, which was soon followed by general œdema. For two months he received little or no treatment, nor did he abandon his occupation during this time. He finally sought admittance to an almshouse, and thence drifted here.

When he entered the ward his condition was the following. He was very œdematous, the face resembling one with severe facial erysipelas in size, though pale and waxy in appearance; the feet and hands had lost almost all resemblance to their normal state. In addition to this there was ascites, and some œdematous râles were heard in the chest.

His urine was scanty, rather dark, and almost entirely albuminous. There were a few granular casts, but no blood-disks. ʃʒiv of the infusion, representing one drachm of jaborandi, was given him, but this was not absorbed, and in a few moments was vomited. I ordered him the same amount to be repeated, but in smaller quantities, often given, one ounce to be given every half-hour. About four minutes after the second dose, diaphoresis set in, and increased after each succeeding dose until it became very profuse.

The action of the drug was kept up for about three hours, and though the patient was extremely weak, which condition was somewhat increased by the sweating, he was much relieved, and remained comfortable for the rest of the day. Careful measurements of the body and limbs, taken before and after the action of the drug, showed a decided reduction in size: the abdomen lost two inches in circumference, the chest one and a half inches, the ankles each one and a half inches, the wrist one inch, the thighs and arms each one and a half inches. For some time after the sweating the urine was strikingly diminished in amount, and buchu was ordered in infusion to increase the flow. The stomach was rather irritable. In the course of a day or two the anasarca again returned, and the dyspnœa was so painful as to demand immediate relief. Erysipelas had started in the right parotid region, and was with great difficulty checked. The temperature on this day was 105⅘°, pulse 160. On account of the erysipelatous complications, the face was totally disfigured, the eyes entirely closed. A four-ounce infusion representing ʒij of jaborandi was administered by enema. In less than ten minutes the patient was perspiring most profusely. The enema was rejected with an opening of the bowels about a half-hour after administration, but the effect of the drug continued for several hours. Thus given, the patient suffered no unpleasant effects whatever; there was no nausea and no depression. The greatest relief followed this dose of jaborandi, and up to the present time he has had only occasion to use it once, then a small quantity of the infusion by the mouth. But the urine was passed in by no means the quantity it should have been, and taking his general condition into account I ordered him a diuretic mixture of acetate of potassium and tincture of digitalis (ɱv). He is now improving rapidly, the albumen has entirely disappeared, and the symptoms which resulted from excessive general œdema have disap-

peared with the cause. For the erysipelas I used a local application of one-half tinct. ferri chlor. and one-half glycerin.

I shall relate another case, which I select from many in which jaborandi has proved of great advantage:

A. B., a man aged 35 years, was brought to the hospital with this history. After exposure of some continuance he was seized with a dull, heavy pain in the loins, almost complete suppression of urine, great general dropsy, headache, and irritability of the stomach. The attack was an acute one; there was no hereditary history of Bright's disease, nor were there any evidences whatever of chronic kidney-disease. His appearance vouched for the truth of the history on his admission to the ward. He was enormously œdematous, was drowsy, and complained of headache. A small quantity of urine was withdrawn by catheter; it was rather light in color, almost all albumen, but under the microscope showed no casts nor blood-disks. His skin was dry and parched. A few hours after admission a dose of the infusion of jaborandi was given, two drachms of the leaves to four fluidounces of water, a tablespoonful ordered every half-hour until it had effect. The nausea prevented the retention of the drug. In the evening he had a violent uræmic convulsion, followed by another; and, as his bowels were costive, an active purge was given by the resident physician in charge. His stomach now became more settled, and the jaborandi was again given, this time with good effect; the sweating was profuse. Wet cups were placed over the loins, and large draughts of water with buchu infusion administered, also milk and beef-tea. The œdema rapidly decreased, and in a few days the man was in his normal state of health.

From these cases, which I have selected from a large number, we may gather the following truths:

Jaborandi is perfectly harmless in the dose which we are accustomed to administer. It is reliable; I have yet to see it fail where a good preparation is obtained. It is rarely followed by serious depression, and when such a result does follow the nausea seems to be the principal cause, or, I may say, its local action as an irritant to the gastric mucous membrane of which the nausea is the symptom. For this alcohol and opium give immediate relief. When given by enema the depression and nausea are both absent. It is at times a powerful sialagogue, but only when given by the mouth, as far as I know.

A small repeated dose will be equivalent to a large one once given, will be more satisfactory in its action, and better tolerated. It will not in any case increase the urine, but, on the contrary, tends to diminish it, and on this account a diuretic should be used always in conjunction with jaborandi in cases of Bright's disease. It will at the very first cause a slight rise in temperature, which, after the sweating stage, will be followed by a fall of but a degree or so; but this cannot be absolutely relied upon.

But let me give you some additional points of interest, which are supplied in the following history:

G. M. B, æt. 28. Admitted to the house with the usual history of exposure,—wet feet, sleeping out at night, etc. His troubles began six months ago with œdema, appearing first on the eyelids, and then on the face and legs. No history of bad hereditation. The œdema on the day of his admittance was very marked, and was general; the feet and face were the most puffy. The urine was very scanty, highly albuminous, no casts, no disks; it was light-colored; nausea.

Gave by hypodermic injection one-thirtieth of a grain of pilocarpin.* The temperature in the axilla was 100°. In the course of one hour and a half it fell three-fifths of a degree. There was no diaphoretic action. At this time one-twentieth of a grain was given in the same way, but without bringing on sweating. The temperature then was 99°. In an hour and a quarter after the second dose, one-fifth of a grain was injected. In about three minutes profuse perspiration came on, which lasted about twenty minutes; was not accompanied by any flow of saliva, nor did any unpleasant effects follow, except slight cutting pain in the bowels. When the sweating ceased the œdema had almost entirely disappeared. Diuretics re-established the renal secretion, and in a day the man was walking out.

From this you see we have in our control the values of this remedy in a concentrated form, which, judging from my experience, is safe and reliable.

I shall give you some statements from the experience of my assistant, Dr. Hull, resident physician, who, in order to test the effects on himself, took one scruple of the leaves in infusion.

"The first effect, which came on about eight minutes after drinking the infusion, and chewing and swallowing about one-half the leaves, was a profuse flow of saliva, which continued three hours. During this time at least thirty or forty ounces must

* Nitrate of pilocarpin, from a solution sent me by Messrs. McKelway & Borell, of this city, made by A. W. Serrard, of London.

have flowed. Following closely upon this was the diaphoretic effect, which was extremely profuse, the perspiration running off in drops and saturating everything. In about half an hour sudden and severe pain was experienced in the bladder, shooting down the urethra, and causing exclamations of pain. This was followed by cutting pain in the lower bowel, though there was no tendency to diarrhœa. It became so severe as to necessitate the use of an opium suppository, which afforded great relief. About this time (one hour after taking the drug) cardiac irregularity was noticed, with great weakness and rapidity of action, and a nervous, restless condition, with a constant yawning.

"There was gradually developed a dimness of vision, and soon surrounding objects beyond a couple of inches from the eye became indistinct. A watch held closely could be read with ease.

"This condition lasted several hours, when nausea came on, followed by severe vomiting, ejecting first the contents of the stomach, finally bile, and then passing off as a continued retching. The unpleasant effects were counteracted by the administration of whisky—about two drachms—in water, and I fell asleep to awake next morning in a weak, languid state, with excessive dryness of the mouth and continued thirst."

Is this valuable drug, then, only to be used in cases where œdema is to be gotten rid of? You will see at once that its value lies in its diaphoretic properties, and that the necessities for diaphoresis are the indications for its use. I will summarize the history of a case in which these indications existed.

A man entered my ward suffering from a violent attack of acute general articular rheumatism. Totally powerless from the universal joint-complications, with high temperature and much pain, some relief was demanded. Believing that the activity of the perspiratory glands was an effort to eliminate the morbid matter, whatever might be its nature, I was led to administer jaborandi in the usual manner. I may add that auscultation revealed the presence of a systolic soft heart-murmur at the base; and acute precordial pain, accompanied by a friction-sound, denoted a double cardiac complication. The very much increased sweating which followed the dose resulted in the complete alleviation of the pain in the joints for the time being, and the temperature, which was high at the time of administration, and had risen during the sweating stage, was lowered about a degree. There was no marked depression, though the heart-trouble rather made us fear such a result. The case was placed upon the usual treatment, and a daily administration of jaborandi, which he demanded, claiming from it great relief from pain, brought about convalescence. In a short time he fully recovered, with no permanent lesion of any sort.

In cases of rheumatic arthritis (acute), I have used it as a local application in the form of poultice, and the relief from pain was the uniform result. It seems to have the property of reducing local œdema by direct action on the sweat-glands where it is applied. In this manner it is used for the œdema of the feet in heart-troubles, and for a time is attended with success.

Acute bronchitis in the first stage has offered a field for its administration, and it has so far succeeded in giving the relief which the rationale of its action has led us to expect from it. I have used it in private practice for this purpose in lieu of the time-honored Dover's powder.

But I claim for jaborandi another property which I have fully convinced myself that it possesses, and which I believe is equal in importance to its diaphoretic action. Its physiological, or I may say toxic, action is borne by the sweat-glands, and probably through their activity its active principle is eliminated, when the dose is sufficient to stimulate these glands through the medium of their capillary circulation. In smaller doses it will simply act as an irritant to the capillary tubes, either on the vaso-motor system, or, I think more probably, through its direct influence as an irritant to the unstriped muscular fibre of the capillaries themselves. The reason I prefer this latter theory is because I have found its local application to be followed by local effects, limited to the part to which the poultice was applied. In small doses, then, it contracts or gives tone to capillaries, and resembles belladonna to a certain extent. In the night-sweats of phthisis, where the general systemic relaxation causes an exudation of the nutritious portion of the blood (called night-sweats), belladonna, or its active principle atropia, is our treasure. To avoid the dryness of the throat, which in some cases was quite annoying, and the other effects of belladonna, which were equally unpleasant, I was led to use jaborandi in small doses as a substitute. I

have found it to answer admirably, both in this hospital and in city practice, a teaspoonful of an infusion of one drachm to four fluidounces being all that is required, given at night. There are no unpleasant effects, and the number of cases which have used it with advantage warrant my recommending its trial to you.

I have given you the result of my own experience, and substantiated it by the recital of cases. I have avoided mentioning the experiments and trials of others; for these I refer you to the journals. I believe this drug to be most valuable, and I believe that the many unsuccessful trials which have discouraged so many have been caused by the unreliability of the preparations in the market. I would advise you to use the infusion of the leaves, which is now inexpensive, and which offers all the advantages claimed for more elaborate and costly preparations.

ORIGINAL COMMUNICATIONS.

BILIOUSNESS AND ITS MANAGEMENT.

BY J. MILNER FOTHERGILL, M.D. Edin., M.R.C.I. Lond.

THERE are few maladies which exercise more the mind of the patient, and are more interesting to the enthusiastic practitioner, than the functional disturbances of the liver, especially that commonly known as biliousness. It is not merely that with such persons many articles of food and drink are to be scrupulously avoided, or the penalty paid for indulgence in them in the shape of a bilious attack (it is not necessary to describe here a bilious attack; all are familiar with the combination of headache, depression, furred tongue, disturbance in the alimentary canal, and easily-ruffled temper, which in part or altogether go to make up this condition), but that they feel themselves more or less crippled in life by the time lost to them through their infirmity. They feel that if they could but be relieved from this infirmity, their working power as well as their comfort would be considerably and definitely increased. Nor is there much room for question that such would be the result. Much, however, can be done for such patients; and as the physiological action of the liver is being gradually better and better understood, and its working comprehended, the capacity of the practitioner to relieve the bilious patient is becoming distinctly greater and more effective. In order, however, to make the subject clearer to those who have not carefully followed the recent literature of the liver, it will be well to review the normal function of that organ. The recently published edition of Dr. Murchison's Lectures on the Diseases of the Liver, containing also his well-known Croonian Lectures on the Functional Derangements of the Liver, renders this a comparatively easy task to what it would have been but a very few years ago. Dr. Murchison has added considerably to this last section in this edition, not only as to the functions of the liver, but as to the causes of functional disturbance of it, the symptoms thereof, and the treatment of these conditions. Following then his account of the function of the liver, we find that it has three duties to perform: 1, to store up glycogen; 2, to destroy and break up waste albuminoid material; and 3, the secretion of bile. For a long time the two first actions were unknown, and even at present the second action is but imperfectly understood generally; and it was thought that the third and last was the sole function of the liver. No simile is perfect, but it may be stated that it would be nearly as accurate to say that the function of a fire is to make cinders. A fire does make cinders, but that is but a small portion of what it does; to convert fuel into heat is the real object for which it is used.

The first function is the storing up of glycogen, a substance which resembles dextrin (they each have a formula of $C^6H^{10}O^5$) in its chemical composition and reactions. It is also, like dextrin, capable of being converted into sugar by the action of albuminoid ferments. It is found in greatest abundance in the liver after meals, and is formed from the grape sugar into which starch and ordinary sugar are convertedby the action of the saliva and the pancreatic secretion. Such store of material in the liver is a sort of accumulated fund from which so much can be constantly given off for the wants of the system. It is like a reservoir, which catches the waters of floods and stores them so that they can be given off in certain quantities during rainless periods. So the liver enables man to eat at intervals, instead of having one steady

slow meal. But glycogen is not merely formed from saccharine material, it is found in animals fed exclusively upon flesh. The albuminoid materials of food are converted into peptones by the action of the gastric and pancreatic juices, and from these peptones the tissues of the body are built and repaired; while the surplus is broken up by the liver into glycogen, and leucin and tyrosin, both early forms of the retrograde metamorphosis of nitrogenized waste. The body is fed by glycogen, which is gradually given off by the liver. When glycogen is produced in excess, it seems to be converted into fat, a more permanent form of storage; and when the supply of glycogen is insufficient for the needs of the system, the body-fat is steadily drawn upon.

The second function of the liver—the destruction and breaking up of albuminoid matters—is a very important one. Not only are the superfluous peptones broken up in the liver, but the waste material of the blood and tissues is there disintegrated, and at least partially oxidized. In proof of this Dr. Murchison points to the facts: (1) that in functional disorder of the liver lithates are formed freely in the urine; and (2) that when a large portion of the liver is destroyed, as by cancer, for instance, the amount of urea is largely diminished. For further information on this and some other points the reader is referred to Dr. Murchison's book, as so much only is taken here as serves to illustrate the subject in hand. The liver is the organ chiefly concerned in the destructive metamorphosis of albuminoid matters, which, as uric acid and urea, are eliminated from the system by the kidneys, and to a lesser extent from the skin. This is a matter to be kept distinctly in view when laying down the dietary of bilious patients.

The third function of the liver is the secretion of bile. "The bile acids in human bile are two—glychocholic acid ($C^{26}H^{43}NO^6$) and taurocholic acid ($C^{26}H^{45}NO^5S$). Both acids are derivatives of albumen, and contain nitrogen; and taurocholic acid, to which the bitter taste of bile is due, contains all the sulphur of the bile." These bile acids are formed in and by the liver, so that in the bile are to be found the derivatives from the albuminoid food not to be obtained from saccharine or other merely hydrocarbonaceous food. This is a fact always to be remembered, as its practical bearing is most important. When the bile is poured into the intestines, much of it is reabsorbed, and goes round and round in the intestino-hepatic circulation. There is every reason to hold that it is this circulation of bile in excess which is an essential factor in the production of the state known as biliousness. Bile performs several useful functions. It assists in the absorption of fat, and possibly of the albuminoid constituents of food. It also is a stimulus to the peristaltic action of the bowel, and prevents decomposition in the bowels. Thus bile has its uses, even that portion of it which is being cast out of the bowel as excrementitious.

This brief consideration of the functions of the liver will serve to demonstrate what an important organ it is, and with how many forms of disease or disorder it is associated. It is obvious that diabetes is essentially a disease of the liver, rather than of anything else, and may be caused variously and notably from prolonged anxiety and brain-overwork affecting the glycogenic processes. But with this subject we are not engaged at present; suffice it to say that Garned has observed that gout and diabetes are found to alternate in the same individual,—a statement I can corroborate. It would seem that when the hydrocarbonaceous material escapes unoxidized, the oxidation of other material is more complete, and so there are no lithates, though the urine may and usually does contain a large amount of urea. This is all that may be said about the relations of the liver to diabetes here. Then in consequence of its second action, the disintegration of albuminoid materials, the disturbances of the liver are most important. When an excess of food is taken, so that the respired oxygen is insufficient for the proper oxidation and disintegration of the assimilated material, then it is said "the liver is at fault." This is rather severe upon the liver, which may be doing its work honestly to the best of its ability, and not at all inefficiently, but its capacities are overtaxed by too great indulgence of the palate. The liver has a great deal more given it to do than it can perform efficiently. As long as the amount of food taken and assimilated is at all in reasonable proportion to the needs of the organism, the liver can get through its duties efficiently enough. But if a large quantity of rich food, highly hydrocarbonaceous, be

eaten and assimilated, as well as a large amount of albuminoid matters, it is certain that the respired oxygen is insufficient for the oxidation of all the material, and the least readily oxidizable matters come off worst. These, as Liebig pointed out, are those materials of aliment which contain nitrogen, a substance which renders all matter with which it is in combination difficult of oxidation. Consequently there is an attack of biliousness,—in this case really a surfeit,—with the appearance of the imperfectly oxidized nitrogenized waste as lithates in the urine. If the albuminoid food had not been accompanied by a large amount of the more readily oxidizable hydrocarbons, the liver might have been able to deal more effectively with these nitrogenized matters. But, as it is, something must be left unoxidized, and this is the nitrogenized food,—that which furnishes the lithates and the bile acids. It is somewhat surprising that the chemical composition of these bile acids has not put the physician sooner on the right, or what I suppose to be the right, track or line of treatment of biliary disturbances. Even Dr. Murchison does not seem to grasp these bearings as clearly as it might have been expected he would. These bile acids, as much as urea and uric acid, are the products of the retrograde metamorphosis of albuminoid and fibrinous material, and cannot be furnished by a non-nitrogenized dietary.

It may be possible to make bricks without straw, but they cannot be made without clay; and it is no more possible to be bilious on a non-nitrogenized dietary than it is to be gouty on a like dietary. This is a general statement, which, however, needs a little qualification. There are those who are naturally bilious, as there are those who are naturally gouty, and with these persons the slightest excess, which other persons would never feel, disturbs the eliminating processes. But as a broad statement it is quite true. It is equally true that the bilious attack is closely and causally associated with the taking of some rich saccharine or oleaginous food, and is said to be due thereto, but it is only indirectly so due. The biliary disturbance is brought about by the hydrocarbons combining with the oxygen in the body, and so leaving the albuminoid matters unoxidized. But the bile acids are not furnished directly by the hydrocarbons. If those hydrocarbons had been taken alone the question might be raised as to whether the bilious attack would or indeed could have followed.

From this consideration of the production of an ordinary bilious attack in a fairly healthy person, it is comparatively easy to proceed to the consideration of the production of allied bilious attacks in those who are abnormally liable to them. Dr. Murchison throws out the thoughtful suggestion that "most people have more liver, just as they have more lung, than is absolutely necessary for the due performance of its function. But in others, not unfrequently the offspring of gouty parents, the organ in its natural condition seems only just capable of performing its healthy functions under the most favorable circumstances, and functional derangement is at once induced by articles of diet which most persons digest with facility." It might perhaps have been better put "by an amount of food which most persons can dispose of with facility." In those people with livers which, if not abnormally small in size, are of limited functional power, bilious disturbances are readily produced, just as they are in persons whose livers are crippled by organic disease. It is the same with the kidneys. Some hereditarily gouty persons seem to possess kidneys of low functional capacity, so that they are rendered gouty,—that is, have attacks of gout in some form induced by a slight indulgence which most persons could undergo with impunity. Their kidneys seem congenitally imperfect, and to resemble the kidneys of other persons when more or less crippled by disease. In persons possessing these defective organs of low functional capacity, disturbances of health are produced by slight causes, such as in other persons whose organs possess some spare power would never be felt to perturb the body-equilibrium; with these bilious persons, then, what has been above described as the consequence of a surfeit is readily induced by the slightest excess of food.

Biliousness may take one of two directions. In some persons there is the regular bilious attack,—headache, furred tongue, disturbance of the alimentary canal, vitiated stools, and fulness over the hepatic region, the urine being merely high-colored. In others again there is rather a dyspeptic condition, with the appearance of lithates in the water, especially about

two or three hours after a meal. There is no essential difference betwixt the two; in each there is defective oxidation. But in the one the bile acids seem to preponderate, while in the other the urinary products of nitrogenized waste take the leading place. The first is rather the condition of the congenitally bilious, the latter of the congenitally gouty. The latter, too, is the more commonly acquired form of disorder, and is probably of the two the one more readily amenable to treatment. But the latter is just as much the result of defective action in the liver as is the former. The kidneys may be doing their duty well, indeed be unusually active, as evidenced by the amount of lithates in the urine, but the liver is acting imperfectly, and so the nitrogenized waste matters are but partially oxidized. It is just like the dyspepsia connected with bad teeth. The stomach may be quite equal to its duties, but it cannot compensate for the imperfect mastication, and so painful and impaired digestion is the consequence. Our forefathers knew well enough that when the urine was laden with lithates the liver was at fault, though from the imperfect state of their physiological knowledge they could not explain the how and why.

The next matter is to see what bearing the details given above have upon the right treatment of conditions of biliousness. I am of opinion that they throw a whole flood of light upon the treatment both dietetic and medicinal. They lead to conclusions somewhat different from what are generally held, especially about the ordinary bilious attack,—that is, where the bile acids are the chief matter. It has been held and is yet too much held in reference to these persons, that "As a rule those articles of diet are most apt to disagree which contain much saccharine or oleaginous matter, and not, as might perhaps have been expected, nitrogenous food, plainly cooked." On this matter I am at issue with Dr. Murchison. I have seen bilious individuals who asserted that they could only take a little lean meat, bread, and tea, getting no better, but worse, on this dietary, who were all the better for a dietary exclusively hydrocarbonaceous. Of course they commenced with the full expectation of being much worse, but were agreeably surprised to find themselves better. In reality these people had worked in a wrong direction, and took the things they should have avoided, and avoided the things they should have taken. Of course it is true that any indulgence in saccharine or oleaginous food in addition to their ordinary fare made them worse; but how that is brought about has been explained above. They never tried doing without their albuminoid food, and that is the point. As a matter of fact, a non-nitrogenized dietary, with the production of liquid stools in the morning by the use of alkaline-saline purgatives, is the line of treatment which gives them most relief. If the wonted dose of the purgative fails to produce free evacuations, the patient does not feel so well that day; when the evacuations are more profuse the patient feels better.

The association of lithates with nitrogenized food is well known, and usually persons who are troubled with lithates or with gravel avoid such food, or take it in limited quantities. Those, however, who do not possess this information pursue their meat dietary until the association is pointed out to them by their medical advisers. A change of dietary is quickly followed by the desired results in the large majority of cases. In both forms of biliousness the dietary should largely consist of farinaceous materials, fruits, fats, and fish or fowls. John Henry Bennett, in his excellent work on "Nutrition in Health and Disease,"—a work which should be read by all sufferers from dyspepsia and biliousness, especially that form associated with deposits of lithates,—points out how the flesh of fish or fowls is more easily assimilated than those forms of meat usually called "brown meats." Of course the flesh of fish and fowls contains nitrogen, and so is more or less objectionable; but these forms of flesh, as Bennett shows, are more easily digestible, which is one matter; and the fish at least contains a smaller amount of nitrogen in proportion to bulk, which is another matter. But even of them the amount must be limited in the case of many patients.

The association betwixt the function of the liver as a disintegrating or oxidizing organ and the disorders of tropical temperatures is now quite intelligible. Where the high surrounding temperature renders the necessity for food to meet the body-wants but small, and the body-combustion is less than in cooler areas, it is clear that only small quantities of food are really required. If then the habits of temperate

zones be carried to tropical climates, and the taste for food maintained by giving to it greater attractiveness by piquant sauces and tasty adjuncts, then it is clear that the duties of the liver will be largely increased. No wonder, then, that so many persons who have resided in warm climates suffer from biliary disorder, and become the subjects of organic disease of the liver. Specially is this the case where the food has consisted largely of highly-seasoned dishes, notoriously bad for those who are liable to biliary disorder, and been accompanied by draughts of alcoholic beverages of various kinds. Where such a dietary is indulged in, even those who possess livers of high functional power, with a quantity of spare liver indeed, must sooner or later feel the effects; but for those whose livers are but barely equal to their needs on the most restricted dietary it is clear that great disorder will soon be induced. And again the subject of indulgence in nitrogenized food crops up. If in the tropics fruit, vegetables, oil, and other hydrocarbonaceous food alone be taken, the liver is not so disordered as when meat is added. It is the second function of the liver which is so serious a matter in hot climates, and there and elsewhere it is certain that the best way to give physiological rest to a disturbed liver is to relieve it as far as possible from the labor of disintegrating albuminoid matter. It apparently taxes the liver little to store up glycogen and to give it out again; but the breaking up of nitrogenized bodies is the labor which tests it most severely. In tropical climates, then, hydrocarbonaceous food should form the staple of diet, and that, too, only in stinted quantities by those whose livers are unequal to high functional activity.

Closely allied to this side of the subject is the question of food-supplies of oxygen.

Biliousness is rather a malady of sedentary life than of open-air life. The hunter, the sportsman, and the farmer rarely suffer from biliousness as do those who lead a quiet or in-door existence. This is quite intelligible, and the necessity for exercise and free supplies of fresh air to those who suffer from biliary disorders is apparent enough. The amount of food that is required and which may be eaten with impunity in very cold weather, tells how much the functions of the liver are connected with the oxidizing processes.

Before leaving the subject of the dietary, a word or two is necessary about the idiosyncrasies of individuals. With some, certain foods will more readily produce biliary disorder than other forms of food. Apparently the liver of one individual can more easily break up the peptones of one form of food; that of another some other form of food. The different effects of wines, however, are much more remarkable and pronounced: with one, port wine is the fluid he must avoid; one single glass of port will produce a bilious attack which might have been averted by avoiding port wine. In another, one glass of champagne will work mischief, but other wines may be taken with impunity. At present no solution of these peculiarities is forthcoming; but, as they are facts, the bilious person will do well to note what wine or other alcoholic fluid disturbs him, and to avoid the obnoxious liquid.

The medicinal treatment of biliary disorders next claims our attention. And it may be well to consider first that form of malady known as a bilious attack, and to which dark-complexioned persons of the biliary diathesis are most subject. Rarely do persons of other diathesis and fair persons suffer from those disturbances which may fairly be said to be connected with the presence of bile acids in excess; while as to those forms of biliary disturbance where the urine is laden with lithates, the condition Dr. Murchison calls lithæmia, persons of other diathesis seem equally liable to them, and they are found in fair and dark people alike. For those bilious attacks, then, which occur chiefly in those of the bilious diathesis, nothing is so good as alkaline saline purgatives taken in some vegetable infusion immediately on getting out of bed in the morning. This should be washed down with some warm fluid which excites the peristaltic action of the bowels, and, if necessary, a vegetable laxative pill should be taken the night before. After a couple of liquid motions,—the more copious the better,—the bilious person feels pretty equal to the day's work before him. Rochelle salts with a little sulphate of magnesium in infusion of buchu forms a most excellent morning purge, in my experience. Sir Joseph Fayrer has found in his Indian experience sulphate of magnesium, with quinine or gentian, sufficient to produce two or three loose motions, an efficient measure in biliary congestion. Even with miserable anæmic individuals such

purgation is necessary, and must precede all attempts to give chalybeates. Bilious persons somehow do not do well with iron. Iron may improve the oxidizing processes in persons ordinarily, but it does not suit persons laboring under biliary disorder, and Sir Joseph Fayrer found it did harm rather than good to anæmic subjects until the purgative plan had been thoroughly followed out, and the liver unloaded, as it is said. Even then purgation is to be maintained to a moderate extent. As long as there is a bitter taste—probably due to taurocholic acid—in the mouth in a morning, the purgation must be continued.

A very important matter in the treatment of biliousness is the question of the administration of mercury. In an ordinary bilious attack a mercurial pill is almost essential, and often free purgation without a mercurial leaves the condition unrelieved until a mercurial is given, when all goes well. This fact is well known clinically. The apparent conflict betwixt this fact and the results of experimentation—that mercury reduces the secretion of bile by the liver—has troubled many persons, but really there is no difficulty in the matter. Mercury sweeps away the bile in the upper bowel, and so brings away bilious stools, especially when an excess of bile is circulating in the intestino-hepatic circulation. Such an action reduced the amount of bile passing out of the gall-duct in animals experimented upon, because it removed the excess of bile going round and round, and thus, apparently, checked the secretion of bile by the liver. Mercury is then a true cholagogue, and its threatened deposition is now averted. Dr. Murchison thinks, too, that mercury has an action in inducing disintegration in the liver, as it helps to remove growths, notably syphilitic gummata and effused fibrin, by rendering the material more easily taken up by the lymphatics. This is a very ingenious suggestion. Certain it is that mercury gives great aid to a liver which is in difficulties, and it is equally certain that if persons who suffer from biliary troubles take, or have taken, mercury freely it is impossible to treat them without a little of that agent. It is well, though, to keep the amount low, and to give a pill containing a little mercury at bedtime, and follow it up with an alkaline-saline purge in the morning. It is pretty apparent from clinical observation that mercury is rather indicated when there is an excess of bile acids present. In cases where there is abundance of lithates it does less good, and is apt to do harm if the kidneys are not in their integrity. It is not unimportant to remember this. In all forms of biliousness, too, there is defective oxidation, and mercury and alkaline-salines are often more useful even to patients suffering from coexistent debility and anæmia than mineral acids and quinine, "the strength, flesh, and color returning under what at first sight might have appeared a lowering treatment." Here I entirely agree with Dr. Murchison, and even after mineral acids and tonics are admissible it is well to maintain the morning purgation. Iron rarely suits these patients, and should be withheld until the liver is once more acting efficiently and has thoroughly recovered its tone. Perhaps of all tonic agents strychnine is the one best adapted to the bilious. It greatly relieves the depression, and it is well to combine it with the nitro-hydrochloric acid.

Such is the treatment best adapted to the bilious attack where the bile acids are the chief cause of disturbance. Some modification is required in the other forms, where there is more or less persistent dyspepsia, with a large quantity of lithates in the water, especially about two or three hours after a meal. This is a malady of middle age and advanced life rather than of youth. Hard-worked business men are apt to acquire this affection, especially when they feel their work taxing them, and so eat quantities of meat to keep them up. They do not get much exercise, and so the oxidizing processes are defective. In such cases this condition is persistent. At other times it may be temporary, as the result of a good dinner. In the latter case a purgative pill at bedtime, in some cases all the more effective for containing a little mercury (but it is not so essential here as in the form just described), and a good Seidlitz powder in the morning are all that is required. Perhaps it is as well to live abstemiously for a day or two after. But when this condition threatens to become chronic, much more is required. It is very common in such sufferers to find reasons to suspect that the kidneys are not quite in their integrity,—a matter which bears on the treatment, and renders the avoidance of much albuminoid food of the first importance. With such patients it is necessary to commence by limiting their nitrogenized food,

and to take to the dietary mentioned above. Sometimes patients object to this dietary, alleging that it will lower them too much, but their objections must be quietly overridden. They soon find out for themselves how much better they are for it, and then willingly continue it. Farinaceous food, fruit, fish, fat in some of its forms but not in too great quantity, and fowls or game in limited quantities, must form the dietary. They want glycogen furnished to them with a minimum of albuminoid matters, as the waste of these materials is the source of their troubles. Then, having fixed the dietary, it is well to give them alkalies in vegetable tonics. Citrate or bicarbonate of potassium or the potassio-tartrate of sodium, with some tincture of nux vomica in an infusion of buchu or gentian, is my favorite formula. It is well to act on the bowels by the resort to a vegetable pill at bedtime, or to some Friedrichshall, Püllna, or Hunyadi Janos water on getting out of bed in the mornings, so as to keep the portal system unloaded. This relief of the portal circulation by purgation is of service in enabling the liver to perform its work more efficiently. But in this state mercurials are not indicated, and are apt to disagree and do positive harm. Especially is this the case where the kidneys are involved. Mercury is largely given out by the urine, and when the kidneys are the seat of disease even small doses of mercury will often give rise to unpleasant consequences. This plan of giving alkalies and purgatives together soon procures decided amendment, combined with the regulated dietary. When the patient's tongue is persistently clean, then, and not till then, may a little iron be added if there is anæmia. But iron should be withheld until the tongue is clean and the urine clear continuously; if given before, it only disagrees. When permissible, it may be added to the mixture, as pot. bicarb., gr. x; fer. am. cit., gr. v; tinct. nuc. vom., gr. x; inf. buchu aut quassiæ, ℥i, ter in die before food, and washed down with a tumblerful of water, or it may be given in full with a little quinine after food. In some cases cod-liver oil is very useful, and its addition agrees well with the patient. In all cases fresh air and exercise should be conjoined with the above measures. If the patient be mentally overworked, he should go away for a while to some place where he can be amused without being tired. Such patients, even when not under the doctor's hands, should avoid brown meats, and should take alkaline waters of the Vals, Vichy, Marienbad, Carlsbad, or Congress Springs character, as beverages to their wine or spirits, and should also have some saline purgative water every other morning. But everywhere and ever they must remember to limit their waste nitrogenized matters by a suitable dietary; without that, all remedial measures are but palliative: they cannot be curative.

NOTES OF HOSPITAL PRACTICE.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF PROF. AGNEW.

Reported by H. R. Wharton, M.D.

REMOVAL OF RECTUM FOR EPITHELIOMA—DEATH FROM PYÆMIA.

APRIL 18, 1877.—Ellen F. presents herself at the clinic to-day, stating that about eight months ago she began to notice pain and difficulty at stool. This has gradually increased, and has been accompanied with excruciating pain, which she can only compare to the touch of a red-hot iron.

Upon examination I find a small ulcerated mass about the size of a cherry protruding from the anus. On introducing my finger into the rectum I find that it is almost occluded by a dense mass of granulation-tissue which occupies the lower two and a half inches of the rectum. On vaginal examination the posterior wall of the vagina is found slightly indurated.

From the history of the case, the appearance and progress of the disease, I conclude that it is an epithelioma of the rectum.

What can be done for the relief of this patient? This is a form of cancer which runs its course with great rapidity, so that an operation, if advisable, should be done at once.

Removal of the involved portion of the rectum in these cases is sometimes followed by great relief; but the advisability of the operation depends much upon the condition of the patient, the position of the disease, and the amount to which it has involved contiguous structures.

If situated in the lower part of the rectum, so that the dissection for its removal has not to be carried too near the re-

flexion of the peritoneum, if it is limited to the walls of the rectum, and the patient's life is rendered miserable by the intense pain which accompanies it, then I think its removal is justifiable as a palliative operation, and promises the patient the only chance of relief. In the case before us we have very much these conditions, except that there is a slight involvement of the posterior wall of the vagina. Her bowels having been previously opened, she will be etherized.

Being ready for the operation, she will be brought to the edge of the table, her legs supported by an assistant on either side. I shall make my first incision from the anus to the coccyx; my second incision will be made from the anus to the vagina, in the median line of the perineum; these two incisions being connected by semicircular incisions following the verge of the anus on each side, the skin being reflected.

The bowel is then enucleated by working up in the connective tissue around the rectum, using the handle of the scalpel and finger, except where the tissues are too dense. The vessels, which are very numerous, are tied as they spring.

I now remove the diseased portion of the vagina, and, having reached healthy tissue in the rectum, I bring it down and remove it.

The perineum and posterior incision being brought together by sutures, I shall stitch the edges of the bowel to the reflected skin. The ligatures, about thirty in number, will be brought out of the posterior portion of the wound.

The amount of blood lost has been less than that from the amputation of a limb.

A dressing of lint saturated with carbolized oil will now be applied, and as soon as she reacts from the ether she will be given opium enough to relieve her pain and keep her bowels quiet. Patient reacted well from ether, and has very little pain.

Evening.—Temp. 103°; P. 128.

April 19, morning.—Temp. 99.3°; P. 102. Patient states that she experiences great relief; takes nourishment well; rested well during night.

Evening.—Temp. 101.1°; P. 116.

April 20, morning.—Temp. 98°; P. 102. Doing well; wound dressed with carbolized oil; free discharge of pus; taking a small amount of opium to keep the bowels quiet.

Evening.—Temp. 100°; P. 108.

April 21, morning.—Temp. 98.4°; P. 108. Complains of slight pain in abdomen; had a chill, and temperature ran up to 102.2°; P. 120. Poultice applied to belly; given quinine and stimulants.

April 23, morning.—Temp. 102.3°; P. 116. Has marked symptoms of septic poisoning; tongue heavily coated; pulse gaseous; wrists swollen and painful; left leg very much swollen, presenting all the appearances of phlegmasia dolens; taking quinine and stimulants; bowels moved by ol. ricini.

April 25, morning.—Temp. 103.4°; P. 136. No change in symptoms; patient not able to take nourishment or medicine; temperature at 12 o'clock was 106°. After this patient sank rapidly, and died at 1 P.M.

No post-mortem examination was made.

TRANSLATIONS.

A Convenient Method of applying Croton Oil to the Skin.—M. Ladriet de la Charrière recommends the following formula:

℞ Ol. theobromæ, 1 part;
Cera alba, 1 part;
Ol. Tiglii, 2 parts.

These ingredients are to be mixed together and moulded in the form of crayons, which may be preserved in tin foil. The oil thus prepared may be used in the treatment of tinea tonsurans or in other affections where the influence of croton oil is to be exercised over a limited area.

Venous Pulse in Chloroform Narcosis.—According to Noël (*Bull. de l'Acad. Roy. de Belg.*, t. x. No. 8), venous pulse appears in something more than one-half the cases during awakening from chloroform narcosis. It usually makes its appearance in the jugular and subclavian veins, and occasionally also in the facial. The pulsations are isochronous with the radial pulse; palpation gives only a slight impression; the pulsations diminish in the external jugular veins on compression of the vein at the base of the neck. The pulsations become stronger when pressure is exercised upon the vein in the upper part of the neck. This symptom, which is so interesting and practical in connection with the influence of chloroform upon the heart, is explained by Noël as dependent upon defective closure of the right auriculo-ventricular valve during the systole which

occurs under the influence of the cardiac weakness brought on in the course of chloroform narcosis. x.

EXTRACTION OF FOREIGN BODIES FROM THE ŒSOPHAGUS IN CHILDREN. — Dr. Thouvenin (*Bull. Gén. de Thérap.*, 1877, p. 226) lays the child face downwards on a table, with its head projecting over the edge and sustained by an assistant. Then, the finger being introduced to depress the tongue, the coin or whatever it may be glides along the finger of the operator, and falls to the ground. x.

HYPODERMIC INJECTIONS OF CHLORIDE OF PILOCARPIN (*Bull. Gén. de Thérap.*, 1877, p. 226).—Among the inconveniences accompanying the use of jaborandi, vomiting is most annoying, the medicine being thrown up very frequently before its influence begins to be shown on the salivary or sudoriferous glands. Dr. Ortille suggests the hypodermic use of chloride of pilocarpin in the dose of .025 grm. (one-third grain) to .03 grm. (one-half grain) in grm. i (℥ xv) of distilled water. Dr. O. has invariably obtained prompt salivation and abundant diaphoresis by this means without any inflammation having followed at the point of injection. x.

FORMULÆ FOR THE ADMINISTRATION OF SALICYLIC ACID (*La France Méd.*, 1876, No. 86).—

℞ Acid. salicylic., ʒi;
Ammon. citrat., ʒss;
Spirit. vini gallici, fʒj;
Aquæ destillat., ad fʒvj.—M.

A tablespoon contains five grains of the acid.

℞ Acid. salicylic., gr. 75;
Potass. bicarb., gr. 50;
Mucilag. acaciæ, fʒviij.—M.

Sig.—Tablespoonful.

For external use:

℞ Acid. salicylic., ʒi ad ʒiiss;
Sodii borat., ʒii;
Aquæ, fʒii.—M. x.

ANÆSTHESIA PRODUCED BY A HYPODERMIC INJECTION OF BROMHYDRATE OF QUININE.—M. Thaon, of Nice (*Le Mouvement Méd.*, 1877, p. 153), had under his care a case of intermittent fever which resisted the administration of bromhydrate of quinine administered by the stomach, and also hypodermically, ten to fifteen grains of the salt being given daily for some days without having mastered the fever. One of the punctures of the hypodermic needle, however, which had been made into the forearm in the region of one of the ante-brachial branches of the musculo-cutaneous nerve, caused complete anæsthesia of the skin over a belt twelve centimetres (four inches) long by six centimetres broad. Thermo-anæsthesia extended a little farther. One month subsequently this anæsthesia remained persistent. x.

CHANGES IN THE MEDULLA OSSIUM IN PERNICIOUS ANÆMIA.—In a letter to Virchow (*Archiv*, Bd. 68, Heft. 2), Cohnheim speaks of a case of pernicious anæmia observed in the Breslau Clinic, in which, besides the usual alterations in other organs, the marrow of all the bones showed peculiar macroscopic and microscopic changes.

It was intensely red. The microscope showed almost total absence of fat-cells; presence (1) of colorless cells—the so-called marrow-cells, many looking like lymph-corpuscles, mostly relatively large, with one or two large nuclei, of an epithelial appearance; (2) of a similar number of colored elements, among which appeared many red nucleated cells whose nuclei were colored to the same degree as their body. Granular red blood-corpuscles were found in the blood at the post-mortem examination, although during life examinations of the blood failed to show these even a week before death.

The fact of finding these elements in the marrow appears to show the importance of this portion of the human system in disease. x.

TIMBO (*Paullinia sorbilis*).—M. Stanislas Martin contributes a brief description of this plant to the *Bulletin Gén. de Thérap.*, No. 6, 1877.

M. Martin's remarks concern for the most part the botanical properties of the plant, and are accompanied with two plates illustrative of the leaves and fruit, and the microscopic appearances of the plant-structure. As a result of his experiments M. Martin has succeeded in isolating—1, an alkaloid to which he gives the name of *timbonine;* 2, starch; 3, a resin; 4, an essential oil; 5, chlorophyll; 6, tannin; 7, an organic acid; 8, traces of glucose.

By treating the finely-powdered timbo at first with sulphuret of carbon, the extraction of the alkaloid is facilitated as well as that of the other principal constituents. The sulphate of timbonine crystallizes in needles; it is white in color; the small quantity thus far obtained has not permitted of any experiments upon animals. x.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, JUNE 23, 1877.

EDITORIAL.

THE AMERICAN MEDICAL ASSOCIATION.

A SUFFICIENTLY full report of the late meeting of the American Medical Association will be found in another column. It will be seen that the attendance was very large, and the proceedings harmonious. Several visiting physicians from Canada added to the occasion by their presence. This is as it should be, but we think the Association was eminently wise in refusing to amalgamate with the similar body in Canada. Habits, interests, modes of education and of thought are still sufficiently diverse in the two countries to prevent complete fraternization, though not distinct enough to add other than zest to habitual intercourse.

The distinguished president was prevented by his lack of voice from doing himself full justice. The work in the various sections was maintained with interest to the last; but a growing feeling was developed that it would be better not to have addresses delivered before the general meeting by the respective chairmen of the various sections, or else that the scope of these addresses should be changed. The idea has prevailed that these addresses should be expositions of the progress of medical science and art. But it is utterly impossible to make such expositions in the single hour allotted to each chairman. The plan originally proposed by Prof. Gross was that an essayist be selected, who should be free to choose his own subject, whether of original experiment, clinical observation, or scientific research, and that such an appointment need not necessarily involve the duty of being chairman of a section. We understand that this question will be brought prominently before the Association at its next meeting, at Buffalo.

The various entertainments given by citizens of Chicago were well attended; but, as they have been conducted, receptions scarcely accomplish their mission in promoting acquaintance and social intercourse among the members of the Association. The American Medical Association should rely upon its own resources, instead of being dependent upon the hospitality of private citizens at each place of meeting. One of two plans might be adopted. The Association might give an annual dinner to the delegates, as is done in the British Medical Association, and as was adopted with great success at the meeting of the International Congress at Philadelphia, last year. The expense should be divided among the members, each subscribing for a ticket at the time of registration.

The cost of a dinner is undoubtedly an objection to this. Moreover, in a set dinner, intercourse is more or less restricted to neighbors, and much time is apt to be lost in the making of bad speeches.

A procedure less dignified, but less expensive, and more effective in promoting general friendship, might readily be adopted. The committee of arrangements might secure some suitable hall or garden, buy a few kegs of lager beer and a supply of cigars, and have the place open to the Association from 8 to 11 P.M.,—small tables and chairs being furnished. No doubt this would not be an aristocratic method of procedure, but in this democratic country we think it would prove eminently popular. We sympathize with President Bowditch in his desire to have the meetings conducted upon the total-abstinence principle, and think that the dryest time would be vastly better than some scenes we have witnessed at previous meetings. There was, however, a touch of human nature in the refusal of one of the Arkansas delegates to go to the receptions after the first

night, "because he would not go to a place where they would not trust him with a drink." And we opine that the Association might be trusted with beer and pretzels.

DR. THEO. G. WORMLEY, of Columbus, Ohio, was elected to the chair of Chemistry, and Dr. John Ashhurst to that of Clinical Surgery, in the medical department of the University of Pennsylvania, June 4. The chair of Physiology was not filled. Prof. Tyson will deliver the lectures during the coming winter.

THE Association gave the natural response to the frantic editorial we recently copied from the *New York Medical Record*, by indefinitely postponing the consideration of Dr. Squibb's proposition in regard to the Pharmacopœia.

CORRESPONDENCE.

NEW YORK, June 9, 1877.

TO THE EDITOR OF THE PHILA. MEDICAL TIMES:

DEAR SIR:—A very unusual amount of interest was felt in a special meeting of the County Medical Society, held in May, when Dr. Montrose A. Pallen read an exhaustive "*Résumé on Divisions of the Cervix Uteri for Dysmenorrhœa and Sterility.*" It was announced that Drs. Emmet, Thomas, Sims, and Peaslee would be present and take part in the discussion, and a "lively time" was generally anticipated.

In the course of his paper, Dr. Pallen gave in detail a correspondence which he had recently had with Dr. Sims. In this he propounded a series of questions to the latter, and the following is an abstract of them and the answers elicited:

(1) In simple stenosis, how do you operate? To this Dr. Sims replied that he made a bilateral incision, with his own improved instrument, up to the vaginal juncture, after which he inserted a hard plug, together with iron cotton, allowing it to remain in position for from four to six days.

(2) What proportion of cases of dysmenorrhœa do you thus relieve? To this Dr. Sims replied, a very large proportion, though he was unable to give the exact statistics. If the condition was of ovarian origin, however, but little success was attained.

(3) What proportion of cases of sterility do you cure? Here, again, Dr. Sims said it was impossible for him to give statistics, but in the removal of sterility many more points were to be taken into consideration than was the case in dysmenorrhœa. The microscope showed that the fault frequently lay with the husband, and sometimes with abnormal secretions in the passages, which destroyed the spermatozoa. Still, in appropriate cases he had obtained a fair proportion of success.

(4) What proportion of operations is followed by eversion of the lips—or so-called ectropion—of the os? Dr. Sims replied that the proportion was exceedingly small when his instrument was used, and that even when it did occur it was a trifling matter, since we have Dr. Emmet's beautiful operation for repairing such injuries about the cervix.

(5) Does the operation cause debility of the uterus or render abortion likely? To this interrogatory Dr. Sims gave a decided negative.

(6) Is it liable to be followed by pelvic cellulitis? To this Dr. Sims replied that even the most trifling manipulations about the uterus sometimes gave rise to cellulitis, but he did not regard the operation as half so dangerous in this respect as the use of sponge or laminaria tents. In New York, pelvic cellulitis occurs more frequently in February and March than at any other part of the year, so that he now never performs any kind of operations during those months if it is possible for him to avoid doing so. In a year's service at the Woman's Hospital, the operation alluded to was performed in seventy-five cases, and yet pelvic cellulitis occurred in but one out of the whole number.

(7) What are the procedures when anteflexion is present? Here Dr. Sims explained his methods of operating in different cases.

(8) In what cases would you operate? Answer: In those in which the above methods would be appropriate.

(9) How great is the danger of hemorrhage? To this Dr. Sims replied that when he used to pursue Simpson's practice of performing these operations at his office, he came near losing the lives of two of his patients, and this was a lesson to him to use greater caution. Since 1868 he has had six cases, but not a single one has occurred since he has been using the hard plug after the operation.

(10) What is the death-rate? To this inquiry Dr. Sims could give no definite answer, not having sufficient data on hand to determine the question. Since 1856 he had operated nearly a thousand times, and two deaths had occurred,—one from general and the other from pelvic peritonitis. As he had before said, he regarded the use of the sponge tent much more dangerous.

(11) After twenty years of experience, are you still of the opinion that the operation does good? Answer: Yes.

(12) Do you perform it as often as you formerly did? Answer: Yes.

Among the authorities quoted by Dr. Pallen as favorable to divisions of the cervix (in addition to Sims) were Simpson, Barnes, Graily, Harris, Schroeder, Emmet, and Thomas. Of those opposed to such operations he mentioned Tilt, Peaslee, and Goodell, the latter at present advocating the method of forced divulsion. Finally, Dr. Pallen gave his own experience. He had made incisions in the cervix 337 times, and employed sponge or laminaria tents in 150 cases, and considered the former method of treatment far more efficient as well as very much less dangerous than the latter.

It was at the conclusion of Dr. Pallen's paper that the "fun" commenced. Neither Thomas nor Emmet was present according to the announcement (the use of their names not having been authorized by them), but it was well understood that Sims and Peaslee were to be the Achilles and Agamemnon on this occasion.

It will perhaps be remembered that last June Dr. Peaslee read a paper before the Academy of Medicine which reflected rather severely on Dr. Sims's method of operation. The latter was not present, and almost immediately afterwards he sailed for Europe. At the meeting of the American Gynæcological Society in September, it was expected that he would reply to Dr. Peaslee, but he was unable to get back to this country in time, so that he had no opportunity until the present of ventilating his views on the subject. Dr. Sims, in no very temperate language, accused Dr. Peaslee of grossly misrepresenting him, saying that the bilateral operation of Simpson was never claimed by him as his own, but that he did claim the posterior incision as original; that Dr. Peaslee had never seen him operate, and that he ought to have been better informed than to criticise methods which are now entirely obsolete. He had repudiated the use of the scissors in these operations ten years ago. Dr. Sims then proceeded to give a demonstration of his present methods of operating. When the cervix projects symmetrically into the vagina, he makes the bilateral incision, also making an incision at the *os internum* if there is flexion, in order to straighten the canal. When the lips project irregularly into the vagina, the bilateral incision will not enlarge the canal, and it is then necessary to split the posterior one to the vaginal juncture, as well as to make the incision at the *os internum*, as before. After the cutting is done, he introduces a tri-valve dilator,—after the method of Ball, of Brooklyn,—after which he leaves a hard-rubber plug of appropriate size in the uterine canal for several days.

After Dr. Sims had thus relieved himself, to use Dr. Peaslee's expression, the latter proceeded to defend himself at some length, and in turn accused Dr. Sims of using language towards him which was not strictly professional; whereupon Dr. Sims, in the generosity of his nature, apologized in the most frank and honorable manner, and said that he trusted that Dr. Peaslee would not hesitate to meet him half-way. Dr. P. was not slow in expressing himself in an equally conciliatory manner, and then there was a sort of general "love-feast" all around, the two heroes cordially shaking hands together in the midst of the most deafening applause from the crowded audience present.

At the May meeting of the Public Health Association the subject of provident dispensaries was again under discussion, and this time the Society, by a unanimous vote, declared itself in favor of such institutions, and instructed a committee, appointed for the purpose, to adopt such means as shall result in their organization, if possible, either in connection with the present free dispensaries, or otherwise. There is a deep and growing feeling among the profession here that it is high time that the gross abuses to which our various charities have so long been subject should be put a stop to by some means or other.

Dr. A. B. Crosby has just given at the Academy of Medicine an exposition of what he terms "*the automatic method of reducing luxations of the hip.*" In October last there was admitted to his wards in Bellevue Hospital a typical case of dorsal luxation (the toes resting on the opposite instep, there being very marked rigidity present, and abduction being entirely impossible), but which had been diagnosed as one of fracture of the neck of the femur within the capsule, by a physician outside, and treated as such for about thirty hours previous to admission. Under these circumstances, he resolved to at once adopt the following plan. The patient, having been placed on his back upon a blanket spread upon the floor, was thoroughly anæsthetized, in order to obtain complete muscular relaxation, and the legs were flexed at a right angle upon the thighs, and the thighs similarly flexed upon the pelvis, for the purpose of removing the strain from the ileo-femoral or Y ligament. Dr. Crosby then placed his hands under the calves of the legs, quite near the knees, and, raising the pelvis a short distance from the floor, made very slight adduction of the affected limb,—when in about half a minute from the commencement of the manœuvre he had the satisfaction of feeling the head of the bone slip into its normal position. He explained that in this procedure the patient was made to perform the reduction himself, a sort of *felo-de-se*, as he termed it; the weight of his body supplying the extension, while the counter-extension was made by the operator, who performed simply the office of a post, though an intelligent one, to be sure. The method was first described to

him by a friend of his in Vermont, Dr. J. G. Allen, who had hit upon it accidentally about two years ago, while in the act of lifting a patient suffering from this dislocation, so as to get him into a suitable position for performing the usual manipulations attempted for the reduction of the deformity. Since then he has adopted the same course, with equal success, in two other similar luxations; so that Dr. Crosby's makes the fourth case in which the procedure has been employed. So far as Dr. Crosby has been able to ascertain, these are the only cases in which it has ever been done. In Dr. Bigelow's admirable monograph on luxation of the hip (a copy of which, strange to say, he found it difficult to lay his hands on in New York) he has found that the same position was used in a number of instances there recorded, but the method pursued was always different from that which he had ventured to call the automatic.

At the regular May meeting of the County Society, Dr. Henry B. Sands read a very admirable paper on "*The Treatment of Intussusception by Abdominal Section*," with the report of a case in which the operation proved successful. The case referred to was that of a child only six months of age. After repeated and persistent efforts to remove the difficulty by kneading the abdomen, inflation, and the distention of the bowel by means of warm water, the intussusception was partially relieved, but a certain portion of the invaginated intestine remained still unreduced. It was then resolved to perform laparotomy, as the child was growing quite feeble; and an incision two inches long was made just below the umbilicus, in the median line. The intussuscepted mass was found in the right iliac region, and it was found necessary to take out of the abdomen a considerable portion of the intestine in order to effect the reduction. The invaginated portion was an inch and a half in length, and there was a complete closure of the ileo-cœcal valve. Some force was necessary to reduce the intussusception, but nevertheless the subsequent progress of the case was highly satisfactory. Two of the silver wire sutures were removed on the fifth day, though some of them were left as long as the fourteenth.

Natural reduction, or the shedding of the invaginated portion of the gut by means of sloughing, Dr. Sands said, was exceedingly rare in children. Inflation or distention by fluids was applicable only when the intussusception was located in the large intestine. The testimony of various authorities shows that the operation has not yet received the sanction of the profession generally in acute cases. Dr. Sands's case makes the twentieth now on record. The first *successful* one of these was performed by Jonathan Hutchinson, in England, in 1873, and the only other American case besides Dr. Sands's was that of Dr. Wilson, of Tennessee, in 1836. Out of the twenty cases, seven recovered; showing a mortality of 65 per cent. In one of these the intussusception was situated in the small intestine—recovery. In fourteen it was in the large intestine, and of these four recovered and ten died. In five the seat of the trouble was not mentioned, and of these two recovered and three died. The mortality seems to depend on the condition of the intestine rather than upon the age of the patient. Abdominal section should never be rashly undertaken, and before resorting to it, it may be well to endeavor to effect the reduction by placing the hand in the rectum, after the method of Simon; though this is of no use if there is much tympanites present. The following are some of the conclusions arrived at by Dr. Sands:

(1.) The success achieved in the past is sufficient to warrant the operation in appropriate cases.

(2.) In intussusception, as in strangulated hernia, the danger lies in delay.

(3.) If undertaken within thirty hours, the operation offers an excellent chance of success.

(4.) Chronic cases are often unsuspected.

(5.) In infancy, the mortality of intussusception is due to the condition of the intestine.

(6.) There is no chance of a cure taking place spontaneously in young children.

The American Neurological Association has just completed its annual meeting in this city. Two sessions were held daily on the 6th, 7th, and 8th, at the College of Physicians and Surgeons, and many papers read. Dr. I. S. Jewell, of Chicago, was re-elected President of the Association.

During the past month, at Bellevue Hospital, Dr. James R. Wood has successfully *ligated the external iliac* for femoral aneurism seated high up in the artery; and at the same hospital Dr. Gouley has recently established perineal *boutonnières*, as he calls them, in two cases of amputated penis. The operation consisted in making an incision from the perineum into the urethra, and then stitching the cut surfaces of the urethral mucous membrane to the edges of the external wound, and was very satisfactory in both instances. In the first case the penis had been amputated in Cincinnati, but in the second Dr. Gouley performed the amputation himself, the whole organ being one enormous growth of cancer.

Of those whose loss by death the profession has lately been called to mourn here, the most prominent are Dr. Charles A. Budd, late Professor of Obstetrics in the Medical Department of the University of New York, and as genial and popular in all circles of society as he was accomplished in his profession; and Dr. H. H. Gregory, the best-known and most successful practitioner in Harlem. The funeral of the latter is said to have been by far the largest that was ever seen in that ancient suburb.

An unusually large number of our medical men either have gone or are about to go abroad this summer. Among them are the following: Wm. H. Van Buren, L. A. Sayre, Wm. H. Draper, J. Marion Sims, H. Knapp, John C. Jay, Jr., D. M. Stimson, and, of course, Fordyce Barker.

The physicians and surgeons composing the staff of the Demilt Dispensary have organized themselves into a permanent medical board, of which all former members of the staff are to be honorary members, and one of the principal objects of which is to be the publication every month of reports of interesting cases, or novel methods of treatment, from one or more of the various departments of the dispensary. The Demilt, from its central position, abundant means, enlightened administration, and the high character of its medical staff, has always enjoyed an enviable reputation among similar institutions in this city and elsewhere.

The recent changes in the medical department of the University of Pennsylvania meet with the unqualified approval of all the friends of a higher education both in medicine as well as in other departments of professional life, and I have yet to hear the first word of unfriendly criticism from any source whatever. The entire medical fraternity here certainly wish the venerable and illustrious institution the most abundant success in its great undertaking; but some of them cannot help wondering where all the money is to come from for the support of so many professorships, as the classes will undoubtedly be considerably diminished,—at first, at all events. In a recent letter to the *Tribune*, Prof. St. John Roosa, of the New York University, holds up the University of Pennsylvania as an example well worthy of emulation, and makes a forcible plea for the endowment of the New York schools.

PROCEEDINGS OF SOCIETIES.

AMERICAN MEDICAL ASSOCIATION.

THE twenty-eighth annual meeting of the American Medical Association was held in Chicago, commencing June 5, and ending June 8, 1877. The session was well attended, the entire number enrolled being 685, delegates, permanent members, and members by invitation. The weather was clear and cool, even chilly, and was most favorable for securing full attendance and good work in the various sections, and to enhance the enjoyment of the social entertainments provided by the Committee of Arrangements.

FIRST DAY'S PROCEEDINGS.

At 11 o'clock, J. MARION SIMS, M.D., called the Association to order to introduce the President, Prof. H. I. BOWDITCH, of Harvard, who thereupon invited the Rev. WM. L. HARRIS, D.D., LL.D., Bishop of Illinois, to open the proceedings with prayer. The chairman of the Committee of Arrangements, Dr. N. S. DAVIS, of Chicago, delivered the address of welcome, in which, after tendering the hospitalities of the city and mentioning its attractions, he briefly referred to the formation of the American Medical Association, thirty-one years before, in the city of New York. Of the 76 members present at that meeting, he could only recognize one at this session, Dr. Washington L. Atlee, of Philadelphia. The annual address by the President, Dr. BOWDITCH, reviewed the past of the Association, and contrasted the present harmonious and orderly session with the scenes of turbulence that were often witnessed in the early meetings. In connection with this, he pointedly referred to the fact that the absence of wine at the receptions in Louisville was an evidence of real progress, and should be recommended in future to the Committee of Arrangements, in order to maintain the dignity and respect becoming the meetings of the American Medical Association. In order to improve the Transactions, he urged discrimination in the selection of essayists, and recommended that some modification of the Smithsonian plan be adopted, by means of which all papers read before the Sections would be submitted to examination by experts whose names should not be divulged, but whose decision should be final; and that no paper should be deemed worthy of publication which did not give something new to medical science, or which did not present such an analysis or such new or lucid arrangement of facts already wholly or in part known as to greatly aid the profession. He suggested that a standing committee be appointed to procure scientific papers for the annual meetings from the best men in the country. He advocated a reduced rate of representation from the various constituent societies, so that the honor of being a delegate would be more sought after and better appreciated, and thought that every honorable physician who felt any interest in the general progress of the profession should desire to become a member of this Association. The proposition for the union of the American Medical Association and the Canada Medical Association was carefully considered. He expressed himself as strongly in favor of some means of conference at stated times, and recommended the matter to the attention of the Judicial Council. The address concluded with a tribute to the medical colleges, whose instructors were cordially welcomed to the Association, for the sake of the influence of good learning upon the future of the profession in this country.

The recommendations contained in the address were referred to a special committee, to report the next morning.

In the afternoon the Sections were well

attended. Dr. N. S. DAVIS read the paper of Dr. A. B. PALMER, of Michigan, on the "*Treatment of Croupous Pneumonia*," the author being absent. The special method of treatment advocated was by full and often-repeated doses of quinine, giving thirty or forty grains in twenty-four hours, combined with occasional small doses of morphia. When this is instituted before much exudation has taken place, the effect, as a rule, is said to be a decided reduction in temperature and in the frequency of the pulse, slower and more easy respiration, with moist skin, diminution of the cough and amount of expectoration, in short, subsidence not only of the fever but also of the evidences of pulmonary engorgement and inflammation, the quantity of quinine to be given being gauged by these effects produced; the only after-treatment necessary being a mild cathartic and supporting diet.

In the discussion of the paper, Dr. MURPHY, of Cincinnati, denied that pneumonia could be thus aborted by any mode of treatment. Dr. L. P. YANDELL, of Louisville, considered malaria as the most prolific source of disease, and in this class of pneumonia cases quinine is most useful. Several others participated in the discussion, the general verdict being that no line of treatment is applicable to all cases, and that the patient should be treated and not the disease.

Dr. JOHN MORRIS, of Maryland, read part of a paper on the "*Effects of Remedies in Small Doses.*" As the essay was in an unfinished condition, it was withdrawn at the author's request, with the privilege of publishing it elsewhere, after completion, as having been "read before the American Medical Association." The essay was disappointing in its character, as from the title it was reasonably expected that it would contain original research, clinical observation, or physiological experiment, in place of which it embodied trite observations and unconfirmed statements, and ended with conclusions which, if not entirely independent of anything contained in the essay, were at least not legitimately drawn therefrom.

In the Section on Obstetrics, Dr. W. H. BYRD, of Quincy, Ill., read a brief paper upon "*Surgical Treatment of Some of the Diseases of the Female Urethra*," in which he described a case of morbid growth surrounding the meatus, which was readily removed after extreme dilatation of the canal. Dr. KENDALL, of Quincy, arose in his seat, and stated that the sketch accompanying the paper was a fanciful one, and that the patient, who had been previously under his care, had merely an ordinary thickening of the urethra from syphilitic deposit.

The paper of Dr. GILMAN KIMBALL, of Lowell, Massachusetts, on "*Extirpation of the Uterus*," is a valuable contribution to surgical science. The operation is comparatively rare, and is generally unsuccessful. In cases of malignant disease the result is always fatal. The question to be considered is this: "Is the operation of gastrotomy, as applied to fibroid or other benign growths of the uterus, a legitimate operation?" The answer given is, "The instances calling for operation are extremely rare, and it should be considered as a *dernier ressort* when there appears to be nothing before the patient other than certain death without it." The fact that fibrous tumors of the uterus, after attaining a certain growth, may remain stationary for years, should forbid operation unless other symptoms imperatively demand it. Favorable cases are rarely met with that call for or justify gastrotomy. Some of the conditions that should forbid interference are:

1. When the constitution is broken down, gastrotomy cannot be otherwise than fatal.
2. When the weight of the tumor is thirty or forty pounds, the resulting nervous shock is so great as to debar the operation.
3. Hemorrhage during or after operation constitutes a grave danger.
4. The adhesions, more or less intimate, with the surrounding parts, increase the risk to the patient.
5. When the disease develops downward, involving the vagina and filling the pelvis, it should not be interfered with.

Conditions favorable to operation are small size of the tumor, freedom from adhesions, pedicle of good length, and the disease entirely restricted or confined to the abdomen. Operations on record have been almost universally performed under a mistake in diagnosis, the one reported by Dr. Kimball in 1853* being the first on record where the operation was undertaken for the extirpation of the uterus based on correct diagnosis. He has performed the operation twelve times, with six deaths, two of which were from septicæmia. In some he had introduced a drainage-tube through the *cul de sac* of Douglass, with good results.

As compared with ovariotomy, the latter operation is far more favorable; under certain circumstances, however, extirpation of the uterus is justifiable; but such cases are rarely met with.

Dr. F. H. HAMILTON, of New York, was elected chairman of the Section on Surgery, and Dr. JOHN E. OWENS, of Chicago, was chosen secretary in the place of Dr. Gunn, resigned. The entire afternoon was devoted to the reading and discussion of the paper on the "*Value of Extension in the Treatment of Fracture of the Femur*," in which suspension of the limb was insisted upon.

The special interest in the subject seemed to centre in the fact that some misunderstanding existed regarding statements concerning fractures made at previous meetings of the

* Boston Medical and Surgical Journal, May, 1853.

Section on Surgery. The following resolution was offered by Dr. W. F. PECK, of Iowa, and, after discussion, adopted:

"*Resolved*, That it is the opinion of this Section that shortening in cases of fracture of long bones is the rule in practice, regardless of any of the plans of treatment now in use."

In the Section on State Medicine and Public Hygiene an able and exhaustive paper on "*The Etiology of Enteric Fever*" was presented by Dr. J. L. CABELL, of Virginia, in which the alleged protection from typhoid fever, supposed to exist in the presence of malaria, was carefully considered and disputed. He was of the opinion that typhoid poison may have other sources than fecal matter, sewage, or miasm, and regarded the disease as a specific fever, perhaps largely attributable to contact with the sick.

Dr. JOHN P. GRAY, of Utica, read an essay on the "*Relations of Spiritualism to Medical Jurisprudence*" before the Section on Psychology; the conclusion being that its medico-legal bearing must be determined by the facts in each case, as to whether spiritualism is an insane delusion or not,—that is, the offspring of disease of the brain,—or simply entertained as a speculative belief with reference to the unseen world. Medical science can take no cognizance of it as a speculation more than it can of any other "ism."

SECOND DAY'S PROCEEDINGS.

The committee appointed to consider the various propositions contained in the President's address presented a report, which, on motion, was laid on the table. Dr. SQUIBB, by appointment made at the previous session, presented the subject of the Revision of the Pharmacopœia. When his hour expired he was only about half-way through his argument, and he requested that the subject be referred to the Committee of Arrangements to appoint a future time for the further consideration and completion of the address. This suggestion was, on motion, adopted.

Dr. JAS. P. G. ROBINSON, of Missouri, chairman of the Medical Section, read a paper on the "*Progress of Medicine during the Past Year.*" In the course of the address he mentioned the case of hydrophobia reported by Dr. Watson, of Jersey City, in the *American Journal of the Medical Sciences* for July, 1876, said to have been cured by woorara and strychnia, in which he discredited the diagnosis. Xanthium spinosum was also pronounced, after careful physiological experiment, to have been found inefficient in the treatment of this uniformly fatal malady. The great question to be settled in cases of reported recovery is that of diagnosis.

Dr. Robinson also referred to the communicability of typhoid fever by milk, the treatment of rheumatism by salicylic acid, and the importance of hygienic and sanitary legislation in preventable disease.

A recess of ten minutes was declared for the purpose of organizing the Committee on Nominations.

Dr. WHITE, of Buffalo, read part of his address on the "*Progress of Obstetrics*," which was afterwards finished in the section.

The proceedings in the various sections were interesting and well attended. Before the Section on Medicine, Dr. H. I. BOWDITCH exhibited an appliance designed by Dr. French, of Portland, *for the alleviation of distress accompanying asthma*. It consisted of a support, with bands of webbing so arranged as to keep the head and chest in a favorable position during violent attacks of dyspnœa. The invention met with general approval, and a cut of the apparatus was ordered to be placed in the Transactions.

The *report* of Dr. DAVIS on *Clinical and Meteorological Records* was of unusually interesting character. He urged the combination of the meteorological reports of the United States Signal Service with the notes of cases, and especially of epidemics, in order to determine the laws of disease as affected by the presence of moisture, ozone, and different electrical conditions of the atmosphere. From this study conducted at Chicago, Cairo, Davenport, and one or two other points, valuable deductions have been drawn. He had himself noticed that the diarrhœa, so peculiar to temperate climates, invariably begins its annual prevalence with the first week of *continuous* high summer temperature, and that every subsequent return is connected with high temperature; the disease depending not so much on the degree of heat as upon its duration.

In the discussion which followed, Dr. Davis stated that diarrhœa prevailed after continued heat, but that dysentery generally followed hot weather which had been preceded by a comparatively cold spell. The paper was ordered to be published.

Dr. CHARLES DENISON, of Colorado, read a supplement to a paper presented the year before on the "*Influence of Colorado Climate on Consumption*," accompanied by a topographical map of the region. He read the notes of several cases which had been benefited by residence in Denver, and thought that the favorable influence of high altitudes was most pronounced in the incipiency of inflammatory and hemorrhagic cases; the measure and severity of the disease, inheritance, and mental condition, all requiring consideration in the prognosis. In some cases the symptoms were apparently aggravated by the rarefaction of the air, which required them either to expand the lungs more fully at each inspiration or to breathe more frequently; where the lung-tissue is much invaded by disease, this constitutes a positive contra-indication to sending patients to Colorado for treatment. Patients in advanced stages of phthisis are better at home, especially when a heart-complication exists; but the presence of a cavity

in the lung is not in itself sufficient to forbid recovery. "The truth is, the systemic influence of extensive disease in the first is often much greater than the slight inroads of phthisis in the third stage."

The paper entitled "*Permeability of the Entire Alimentary Canal by Enema, and Some of its Surgical Applications*," by Dr. ROBERT BATTEY, of Georgia, was postponed until next year, at the request of the author, he having been unable to finish the article in time for this meeting.

Prof. GROSS read a paper on "*Stricture of the Urethra from Masturbation, and its Pathological Significance*," by S. W. GROSS, M.D., of Philadelphia, who was unable to attend. Examination of the urethra by olive-pointed bougies of good size enables the surgeon to locate and define a stricture which would pass undetected by the old metallic bougies. A new instrument for internal urethrotomy was exhibited, which, being olive-pointed, concealed a knife-blade at its shoulder, by which a stricture could be incised to any desired extent.

Dr. W. T. BRIGGS, in a paper on "*Medio-Bilateral Lithotomy*," advocated this mode of operating as the simplest, safest, and best adapted to the majority of cases.

"*The Treatment of Fractured Ribs by Extension and Expansion of the Thorax and Retention by Plaster-of-Paris Bandage*," was the title of a practical paper by Dr. LEWIS A. SAYRE, of New York. The method recommended was to make the patient grasp a ladder or point of support above the head, by which the pectoral muscles should be put on the stretch and the ribs extended. Having the bones in apposition, they are retained by the roller and plaster bandage.

In the Section on Medical Jurisprudence, Chemistry, and Psychology, Dr. R. J. PATTERSON, of Illinois, presented a paper entitled "*Do Facts justify the Recognition of Moral Insanity as a Distinct Form of Mental Disease?*" which query he answered in the negative: "most decidedly, there is no such thing as moral insanity."

In discussing the essay, Dr. BUCK, of Canada, and Dr. SEGUIN, of New York, expressed their belief in a form of moral insanity, and cited cases in support of this view; but the conclusions of the paper were supported by a number of others.

Dr. F. N. BELL called the attention of the Section on State Medicine and Public Hygiene to the propagation of tuberculosis by articles of food, in a paper on "*Tuberculosis in Milch Cows, and the Contagiousness of Tuberculosis by the Digestive Organs.*" The transmissibility of the disease by this method is undoubted. The practical deductions from the paper were that the strictest police inspection of public meat-markets should be instituted, and tubercular meats condemned and destroyed, the sale of such diseased articles of food should be forbidden under heavy penalties, and the greatest care exercised in obtaining milk from healthy cows for the rearing of infants.

In the evening the *Rocky Mountain Association* met at the Palmer House, to hear the annual address by the president, Dr. TONER. The association is composed of those members of the American Medical Association who crossed the Rocky Mountains in 1871 to attend the meeting in San Francisco. After listening to the address, a copy of which was requested for publication, the Association adjourned, after electing Dr. N. S. DAVIS president for the ensuing year.

THIRD DAY'S PROCEEDINGS.

The Secretary stated that the only reports on necrology in hand were those from the States of Indiana, Maryland, and Missouri, and the United States Army. They were referred to the Committee on Publication. The Committee on Prize Essay reported that only one essay had been placed in its possession in time for examination, and that they did not consider it entitled to the prize.

The Judicial Council reported in regard to several cases of disputes as to representation, which had been referred to them. They recommended, in regard to the question between the Arkansas State Medical Society and the Arkansas State Medical Association, which was decided in favor of the former last year, that no further action be taken, and that the application of the latter body for representation be refused. They also reported favorably on the admission of delegates from the Branch County Medical Society of Michigan, and against the admission of a delegate from the Hendricks County Medical Society. In the matter of certain charges, the committee reported that, inasmuch as the said charges had no bearing on the professional standing of the defendants, they should be dismissed. The report was accepted.

The Committee on Publication in their report condemned the system of so-called verbatim reports of discussions in the various Sections, and recommended that these reports be made in future by medical men, who alone are qualified for the task. Of vol. xxvii. of the Transactions, 1250 copies were printed, 1207 of which have been distributed. The same edition of the prize essay was published, of which 1063 were distributed.

The Treasurer, Dr. CASPAR WISTER, of Philadelphia, reported as follows:

"Under the positive instructions of the Association, the prize essay has been published, at a cost of some $6000. This unusual outlay, in addition to the annual volume of Transactions, leaves the treasury in an exhausted condition, as it has practically given to each member $9 in value for $5 received. In this his last report, after twenty-two years of service, it remains for the Treasurer to thank the Association for its long-continued

confidence, and to regret that in leaving the treasury solvent he cannot leave a more abundant surplus." The balance in the treasury was stated to be $172.72. The report was accepted and referred.

Dr. EZRA M. HUNT, of New Jersey, chairman of the Section on State Medicine and Public Hygiene, delivered the annual address on these subjects, in which he urged a more efficient sanitary police, and called upon municipal authorities to furnish means to the local Boards of Health, so that they would be enabled to strangle an epidemic at its birth. Medical colleges were solicited to make the study of hygiene a part of their curriculum, as in the Johns Hopkins College of Baltimore, so that public health officers might be furnished with special training for their work.

The address was well received, and was referred to the appropriate Section for discussion.

The librarian reported the addition of 187 distinct titles during the year, making the library now to consist of 817 titles, comprehending about 2034 volumes, inclusive of pamphlets. In the department of foreign exchanges the library is reaping most valuable benefits.

Dr. SQUIBB now resumed the reading of his lengthy argument on the revision of the Pharmacopœia. In conclusion, he said that he was tired of the whole subject,—that the Association might table it, or it might prepare a plan and offer it to the public, or, in the third place, it might appoint a committee to prepare a report for presentation at the next annual meeting. These three courses were open to the Association, and in either case he would be satisfied.

OFFICERS OF THE ASSOCIATION.

Prof. GROSS, chairman of the Committee on Nominations, moved a suspension of the regular order of business, in order to hear a partial report from that committee. The motion was carried, and the report read as follows:

"The Committee on Nominations respectfully report the following for the various offices named:

President—T. G. Richardson, M.D., Louisiana.

Vice-Presidents—J. P. White, M.D., New York; Moses Gunn, M.D., Illinois; G. W. Russell, M.D., Connecticut; and A. Dunlap, M.D., Ohio.

Section of Medicine, Materia Medica, and Physiology—Chairman, A. L. Loomis, M.D., New York; Secretary, J. H. Etheridge, M.D., Illinois.

Section of Obstetrics and Diseases of Women and Children—Chairman, E. W. Jencks, M.D., Michigan; Secretary, H. O. Marcy, M.D., Massachusetts.

Section of Surgery and Anatomy—Chairman, Henry H. Smith, M.D., Pennsylvania; Secretary, E. Z. Early, M.D., Arkansas.

Section of Medical Jurisprudence, Chemistry, and Psychology—Chairman, W. Kempster, M.D., of Mississippi; Secretary, E. A. Hildreth, M.D., West Virginia.

Section of State Medicine and Public Hygiene—Chairman, J. L Cabell, M.D., Virginia; Secretary, E. J. Marsh, M.D., New Jersey.

Time and Place of next Meeting—At Buffalo, New York, on the first Tuesday of June, 1878.

Prof. H. C. WOOD, in a brief reply to Dr. Squibb, denied that he had spoken for the University of Pennsylvania, as had been stated. He regretted that personalities had been introduced into the discussion and the motives of honorable men meanly misconstrued. Dr. George B. Wood, formerly president of the American Medical Association, and now in failing health, keenly felt the attack upon his character, and did not want the Association to put upon record that he had prostituted his position, and that conventions had been manipulated in order to allow him and Dr. Bache to build up their private fortunes out of the present Pharmacopœias. He hoped the Association would not say that the labor to which he had devoted his life was a failure. It was a point of honor with these gentlemen, and not one of money.

The proposition to issue a new Pharmacopœia meant the introduction of discord into the Association and confusion in the profession. The American Medical Association could not agree on so simple a matter as the nomenclature of disease, and it was not at all likely that they would be able to agree on such a measure as proposed by Dr. Squibb. The two Pharmacopœias might exist side by side, and the rule of the survival of the fittest would scarcely apply, because one would inevitably flourish in one section of the country and the other would prevail elsewhere.

Prof. N. S. DAVIS, of Chicago, endorsed the sentiments expressed, and moved that the whole subject be indefinitely postponed. This motion was carried by a large majority.

In the various Sections, work having accumulated, the time was devoted to hearing papers, and but little was devoted to their discussion. Several essays were also referred to the Publication Committee without reading, among which was a paper by Geo. E. Holton, of Ohio, on "*Phthisis Pulmonalis*."

In the Surgical Section a paper was read by FRANK WOODBURY, M.D., on "*Suspension as a Means of Treatment in Spinal Distortions*," by Dr. BENJ. LEE, of Philadelphia, and the apparatus, or "spinal swing," was exhibited and explained. In discussing the subject, Dr. Sayre pronounced Dr. Lee's apparatus one of the most important appliances ever devised for the purpose.

An article by Prof. GROSS, "*On the Immediate or Proximate Cause of Pain*," was listened to with marked interest. The similarity of the nervous fluid and electricity was con-

sidered, and their possible identity suggested, modified by the play of the vital actions which everywhere exist in the organs and tissues through which the nervous fluid circulates. The fluid under consideration being generated by the brain, spinal cord, and nervous ganglia, the nerves simply act as conductors of the impulse, pain being due immediately and directly to some obstruction to the transmission of the nervous current, thus causing an accumulation of nervous fluid at the site of obstruction. Pain can only be experienced in connection with a normal condition of the nervous centres concerned, or, conversely, when the brain and spinal cord are seriously affected there can be no perception of suffering whatever. Pain is modified, finally, by the structure of the part involved, and by the nature of the exciting cause.

Dr. SAYRE presented a case of *choreic manifestations* in an idiotic and emaciated child of 12 years, which he pronounced entirely reflex in its nature and due to genital irritation, and for which he recommended clitoridectomy. He stated that the vulva was inflamed and congested, and invited the audience to notice the general spasmodic seizure produced when he touched the patient's clitoris. As the audience was "mixed," this exhibition verged on indecency, or was at least in questionable taste in a public gathering; although it must be acknowledged the demonstration was very effective, and the result as striking as could be expected from the subject of the experiment. From a scientific standpoint, it would be interesting to know how much the average non-choreic female would flinch when the clitoris was pressed upon by a member the size of Dr. Sayre's thumb.

FOURTH DAY'S PROCEEDINGS.

This being the last day of the session, communications from the Secretary and the Committee of Arrangements, and reports from the several sections, were received and referred.

The Nominating Committee completed their report, making Dr. Richard J. Dunglison, of Philadelphia, Treasurer of the Association, in place of Dr. Wister, resigned, and Dr. Lee, of Washington, Librarian, which was adopted, and the officers elected.

Dr. Squibb asked permission to withdraw his paper from the minutes of the Association, which was granted.

Upon motion of the Secretary, Dr. Thomas M. Drysdale, of Philadelphia, now travelling in Europe, was accredited a delegate to foreign Medical Societies, and Dr. Clifton E. Wing, of Massachusetts, was appointed a delegate to the Canada Medical Society. Dr. Lewis A. Sayre, of New York, was, on motion, constituted a delegate to the next meeting of the British Medical Association.

The report of the special committee of which Dr. E. Seguin, of New York, is chairman, recommended that the American Medical Association send special delegates to the International Medical Congress at Geneva, to advocate the adoption of uniformity of means of medical observation and keeping of records, and to act with the concurrence, if possible, of those members of the Congress who will be found engaged in advocating the application of uniformity in this and other departments of science. The report was adopted, and Dr. Seguin was appointed chairman of the commission.

The Kentucky State Medical Society recommended the passage of certain resolutions in behalf of what is known as the Morrison bill for the discontinuance of the tariff on quinine, which were adopted, and the Secretary directed to transmit a copy to the National Congress.

Dr. SINGLETON, of Kentucky, offered the following: "*Resolved*, That the members of the American Medical Association regard with feelings of the deepest pride and pleasure the sentiments of peace and nationality now existing and steadily gaining in our great country; and that in commencing the second century of our national independence we hail the present and prospective harmony of the American Sisterhood of States as promising the greatest and most beneficent results in science and humanity in the future."

This was seconded by Dr. Eugene Grissom, of North Carolina, and unanimously adopted, with great applause.

Dr. WOODWARD, U.S.A., offered the following, which was also adopted:

"*Resolved*, That from this meeting, and hereafter, the practice of printing in the transactions of the Association the so-called verbatim reports of the debates in the Sections be discontinued, and that the reports of the Sections be limited to the papers presented and recommended by the Sections for publication, and such minutes as may be actually read before the Section."

Dr. HENRY H. SMITH, of Philadelphia, offered a resolution which was unanimously adopted, by which the Association expressed regret at the announcement of the illness of its former President, Dr. George B. Wood, and tendered him the assurance of sympathy and continued regard.

In accepting the resignation of Dr. Caspar Wister, of Philadelphia, a vote of thanks was tendered to him for the faithful manner in which for twenty-two years he had filled the office of Treasurer of the Association.

Dr. T. G. RICHARDSON, of New Orleans, was now installed as President by Dr. Bowditch, the retiring incumbent. In a neat and graceful address Dr. Richardson tendered his thanks to the Association for the high honor conferred upon him, which he declared was intended as a compliment to his section of the country, the great Southwest, rather than to himself, who was personally unacquainted with the greater part of those present. He

thanked them for this renewed evidence of good feeling, and especially "in the name of my dearly loved little Louisiana, who, having at last emerged from the thicket of briers and thorns in which she has been for so many years entangled, is now arranging her dishevelled hair and mending her tattered garments in order that she may make a respectable appearance in the now—thank God—unbroken national family circle." He felt a deep sense of unworthiness to fill the chair that had been occupied by the great men who had preceded him, but asked the Association from the shreds of his inefficiency to weave a mantle of charity under which his shortcomings might be hidden.

Dr. BRODIE, of Michigan, offered a resolution of thanks to the Committee of Arrangements, and Dr. WOODWARD, U.S.A., was called upon for an address of acknowledgment of the hospitality of Chicago physicians, in the course of which he was interrupted by frequent applause.

The Association then adjourned. F. W.

GLEANINGS FROM EXCHANGES.

A NEW PREPARATION OF IODINE (*The Practitioner*, May, 1877).—Mr. J. Crouch Christopher calls attention to a new preparation, which, he says, in his hands has proved to be more useful and to have fewer disadvantages than other remedies of like nature in more general use. It consists of twelve grains of cinchona flava, one grain and a half of iodine in the form of hydriodiç acid, and one grain of protoxide of iron to a fluidrachm of liquor. The fact that the iron compound remains in the state of proto-salt (whereby its value is enhanced), and that the liquor never, either by time or exposure, becomes inky through the action of the tannin in the bark, tends to show that there is something more in this case than a mere mixing of ingredients.

The cases in which this preparation or compound has been found most useful were, for the most part, cases of secondary and tertiary syphilis, particularly those in which mercury had been lavishly used or abused,—cases in which it was difficult to determine to what extent the diseased condition was due to syphilis, to the abuse of mercury, or to a combination of both. Great benefit has been derived from its employment in cases of persistent and frequently-recurring boils at a time when what may be termed a furunculoid epidemic existed.

It has been serviceable also in cases wherein it was important to give iodine in some form without incurring the risk of depressing the patient unnecessarily,—such as cases of scrofula, anæmia, and glandular enlargement. Some of these, intolerant of the officinal preparations of iodine, tolerated this, and were benefited by it.

SULPHUROUS ACID (*Ibid.*).—Dr. Walter Fergus publishes the results of his experience with sulphurous acid. In tonsillitis and pharyngitis no remedy gives such relief as the frequent spraying of the part with undiluted sulphurous acid. So great is the ease given by it that patients ask to have it repeatedly applied. In diphtheria Dr. F. relies exclusively upon the sulphurous spray, its aerial inhalation, and ice, as topical remedies. In chilblains, hay asthma, sprains or bruises, contused wounds, burns, etc., he recommends its local use as a spray or lotion in the strength of one part of acid to from ten to twelve parts of water. He reports a case of compound comminuted fracture of the leg, in which the lotion was used and the wound dressed under the spray. It healed with scarcely the appearance of pus. He then considers the use of sulphurous acid as a disinfectant and antiseptic: he does not think it is well to have a slow continuous evolution of the gas going on in a room, but prefers to use it at intervals in full strength, and to flush the room immediately afterwards with pure air from the outside. He burns common flowers of sulphur with about one-fortieth part its weight of finely-powdered charcoal. A convenient quantity of the mixture may be placed upon a piece of sheet-iron and lighted with a match. He asserts that the fumes are not only unirritating, but that in cases of catarrh, bronchitis, and pneumonia, they are often positively beneficial.

CASES ILLUSTRATING THE ADVANTAGES OF THE GENU-PECTORAL POSITION (*The Lancet*, March 17, 1877).—Dr. Arthur W. Edis reports the following cases illustrating the advantages of the genu-pectoral position:

A. L——, æt. 20, married four years, sterile. Suffers much from severe pain in lower back, and down the left leg on standing or walking. Has severe pain in coitus and defecation, always worse just before the catamenial period.

On examination, the uterus was found to be retroverted and the left ovary prolapsed and exquisitely sensitive to the touch. On placing the patient in the genu-pectoral position, and allowing the air to enter per vaginam, the uterus was readily replaced, and the ovary could no longer be felt.

Impregnation having occurred after coitus in the genu-pectoral position, the patient missed her next period for the first time in her life. Considerable relief to the other symptoms was also experienced. A Hodge's pessary was passed, but could not be retained owing to the sensitive condition of the ovary. In consequence of some domestic trouble, the patient miscarried about the sixth week.

Impregnation again took place by resorting to the same posture, a month subsequent to this, and utero-gestation is now progressing

accompanied by the usual symptoms. A Hodge's pessary together with a frequent resort to the genu-pectoral position prevents the uterus remaining retroverted, and there is every prospect of the case proceeding to a favorable termination, and this after four years' sterility.

S. F——, æt. 29, married two years, sterile. Uterus found to be retroverted, cervical canal slightly granular. A Hodge's pessary was inserted, and nitric acid applied to the cervix. Relief to the symptoms ensued, but the sterility remained unimproved. Impregnation ensued the very first time coitus was effected in the genu-pectoral position. The patient miscarried during the second month of utero-gestation from over-fatigue and jolting in an omnibus. The pessary remained in, but the patient never assumed the knee position, as she had no discomfort.

Eight months subsequently to this, the local symptoms being very slight, the patient again consulted me respecting her infecundity. Adoption of the posture above mentioned was advised, and later on I learnt that again she had become pregnant within a few days of my seeing her. Pregnancy advanced satisfactorily, the knee-position being frequently resorted to until after the fifth month, with manifest relief to the morning sickness and the feeling of bearing-down.

NITRITE OF AMYL (*The British Medical Journal*, January 27, 1877).—Mr. W. D. Lane reports the following conclusions as the result of various experiments made with amyl-nitrite;

1. Amyl-nitrite, when inhaled in small quantities, produces reddening of the face in man, and of the nose and mouth in kittens: this action is due, according to Brunton, to the dilatation and overfilling of the arterioles.

2. When inhaled by kittens in large quantities, it produces cyanosis of the nose and mouth, along with insensibility. The cyanosis arises from overdistention of the venous system, this being due to the engorged arterioles propelling the blood into the veins, while the insensibility is probably caused by overdistention of the venous system and the heart.

3. When inhaled in small quantities, it produces recovery from chloroformic insensibility, by dilating the arterioles of the brain and thus removing the cerebral anæmia due to the chloroform.

4. When inhaled in large quantities, instead of producing recovery from chloroformic insensibility, it not only retards it, but it may cause death by paralysis and overdistention of the heart, and engorgement of the venous system.

5. It causes a rise of temperature when inhaled in small quantities by the increased amount of blood in the arterioles causing an increased tissue-change in the body.

6. In large doses (inhaled) it produces a fall of temperature.

7. It also helps to produce recovery from the chloroformic insensibility by raising the temperature which is always lowered by chloroform, and by removing the paralysis of the heart due to chloroform: this action is well seen by the nitrite of amyl making the heart's beat fewer and its sounds louder.

8. Death is caused chiefly by paralysis of the heart, which is shown by all its cavities being distended, and by engorgement of the venous system.

CAN A STROKE ON THE FACE RUPTURE THE MEMBRANA TYMPANI? (*The Clinic*, June 2, 1877.)—Dr. Fritsch proves the affirmative by citing several cases, and claims that, on testing by Valsalva's method, a loud whizzing can be heard in the external auditory passage. If the opening in the membrane be the result of disease, the sound is of a hissing character, which can be readily explained by the partial stoppage of the Eustachian tube by inflammatory secretions. The opening in the membrane produced by a blow is a fissure, whilst that caused by disease is round or oval.—*Allg. Med. Central-Zeitung*, No. 33, 1877.

IT is stated that "sweet fern" (*Comptonia asplenifolia*) commands in Maine five dollars a ton. It is used in the manufacture of tannin.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JUNE 3, 1877, TO JUNE 16, 1877, INCLUSIVE.

SUMMERS, JNO. E., SURGEON AND MEDICAL DIRECTOR.—Granted leave of absence for one month. S. O. 76, Department of the Platte, June 9, 1877.

PAGE, CHAS., SURGEON.—To perform the duty of Medical Director of the Department during absence of Surgeon Summers. S. O. 76, c. s., Department of the Platte.

ALEXANDER, C. T., SURGEON.—Assigned to temporary duty at these Headquarters, and to accompany the Department Commander during existing field operations. S. O. 62, Department of the Columbia, May 29, 1877.

GRAY, C. C., SURGEON.—To report in person to the Commanding General, Department of the Missouri, for assignment to duty. S. O. 119, A. G. O., June 4, 1877.

VICKERY, R. S., ASSISTANT-SURGEON.—Assigned to temporary duty at Fort Hamilton, N. Y. H. S. O. 131, Division of the Atlantic, June 15, 1877.

MOFFATT, P., ASSISTANT-SURGEON.—Assigned to duty at Fort Mackinac, Michigan. S. O. 131, c. s., Division of the Atlantic.

PAULDING, H. O., ASSISTANT-SURGEON.—Relieved from duty in the field, and to resume his duties as Post Surgeon, Fort Ellis, Montana Territory. S. O. 71, Department of Dakota, June 5, 1877.

HALL, W. R., ASSISTANT-SURGEON.—To accompany the troops withdrawn from Alaska, and, upon arrival at Fort Stevens, Oregon, to report to the Commander of that post for duty as Post Surgeon. G. O. 13, Department of the Columbia, May 23, 1877.

TORNEY, G. H., ASSISTANT-SURGEON.—To accompany battalion 16th Infantry from New Orleans, La., to Fort Leavenworth, Kansas, to remain on duty with regiment, and await orders from A. G. O. relieving him from duty in the Department of the Gulf. S. O. 97, Department of the Gulf, June 7, 1877.

CORBUSIER, W. H., ASSISTANT SURGEON.—Assigned to duty at Chattanooga, Tenn. S. O. 111, Department of the South, June 5, 1877.